

Final Project

Instructions:

You are a real estate agent at Home Sweet Home, Inc. To distribute the work equally among the available agents, the company recently came up with a policy that everyone should involve in the selling transactions in such a way that the total gross area of the houses handled by one agent at a given time should not be more than 20,000 square feet.

As a real estate agent, you have the authority to remodel (using a specific budget provided by your company) a house before listing it.

You currently don't have any work. However, you just saw that 20 homeowners contacted Home Sweet Home, Inc. to sell their houses. Those houses are the first 20 rows of the file **house.csv**. The other rows of the file are details of the houses, including the listing prices, that were sold by your company to date.

Your objective is to find answers to the following questions using the available data:

1. Which houses you should assign to yourself so that they maximize the total selling price (because your commission is a percentage of the selling prices), with the constraint that the sum of the gross area of those houses is less than 20,000 square feet?
2. Which of those houses you should remodel before listing so that they get the maximum value?

Provide all R codes in a separate document, as applicable. Your submission will be graded based on your approach.

Be creative about how you present your findings. Some examples of your submission are, a report, a video or anything else that you can think of. Upload your submission in Canvas by the due date. Show all your work and justify every step you are taking. Only R should be used for any plots or calculations.

Good luck!